

REMARKS

Claims 1-40 were pending in this application.

Claims 1-40 have been rejected.

Claims 1, 8, and 14 have been objected to.

Claims 1, 2, 8-10, 13, 14, 17, 20, 27-29, 32-36, 39, and 40 have been amended as shown above.

Claims 1-40 remain pending in this application.

Reconsideration and full allowance of Claims 1-40 are respectfully requested.

I. OBJECTIONS TO CLAIMS

The Office Action objects to Claims 1, 8, and 14 because of various informalities noted in the Office Action. The Applicants have amended Claims 1, 8, and 14 to correct the noted informalities. The Applicants respectfully request withdrawal of the objections.

II. REJECTIONS UNDER 35 U.S.C. § 112

The Office Action rejects Claims 9, 10, 28, and 29 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action asserts that the phrase “special purpose hardware unit” was not described adequately in the originally-filed specification. The Applicants respectfully note that the originally-filed specification recites the use of a “special purpose circuit.” (*Application, Page 7, Lines 14-15*). Based on this and other

disclosures, a person skilled in the art would recognize that the inventors had possession of the claimed invention at the time of filing. However, the Applicants have amended Claims 9, 10, 28, and 29 to recite a “hardware unit” rather than a “special purpose hardware unit.” These amendments broaden Claims 9, 10, 28, and 29 to cover the use of any hardware unit.

The Office Action rejects Claims 14, 33, and 40 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action notes that various “forms” recited in Claims 14, 33, and 40 are inconsistent with the specification. The Applicants have amended Claims 14, 33, and 40 to correct the noted informality.

The Office Action rejects Claims 1-40 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action asserts that Claims 1, 20, and 39 are indefinite because the claims recite supplying an “edge identification” or “edge detection indication” without identifying what receives the “edge identification” or “edge detection indication.” The Office Action also asserts that Claims 17 and 36 recite “effecting a combined low pass filter and derivative operation” without identifying what the operation involves. The Applicants respectfully traverse this rejection.

Regarding Claims 1, 20, and 39, a claim satisfies 35 U.S.C. § 112, second paragraph, as long as the “claim as a whole ... apprises one of ordinary skill in the art of its scope.” (*MPEP* § 2173.02).

Claims 1, 20, and 39 are clear – an “edge identification” or “edge detection indication” is supplied in response to a particular event. Claims 1, 20, and 39 need not specifically identify what receives the “edge identification” or “edge detection indication” to sufficiently apprise a person skilled in the art

of their scope. As a result, Claims 1, 20, and 39 are definite.

Regarding Claims 17 and 36, the Applicants have amended Claims 17 and 36 to recite “effecting a combined low pass filter and derivative operation on [an] image related signal.” Based on this, the Applicants submit that Claims 17 and 36 are definite.

Accordingly, the Applicants respectfully request withdrawal of the § 112 rejections. Because the § 112 rejections represent the only outstanding rejections of Claims 1-16, 20-35, and 40, the Applicants respectfully request full allowance of Claims 1-16, 20-35, and 40.

III. REJECTIONS UNDER 35 U.S.C. § 102

The Office Action rejects Claims 17-19 and 36-38 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,697,957 to Noren et al. (“*Noren*”). The Office Action rejects Claim 39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,979,022 to Snashall et al. (“*Snashall*”). These rejections are respectfully traversed.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Noren recites a method and apparatus for suppressing “electrode polarization components” in

a cardiac signal. (*Abstract*). As shown in Figure 36, the apparatus includes a low pass filter, a differentiator stage for producing a first derivative of the filter output, and a summing stage for summing the first derivative and the filter output. (*Col. 11, Lines 30-42*).

Noren clearly shows that the production of a filtered signal by the filter and the production of the first derivative by the differentiator stage occur separately in different components in the apparatus. *Noren* lacks any mention of performing a “combined” low pass filter and derivative operation on an “image related signal” without “separating the two operations” as recited in Claims 17 and 36. As a result, *Noren* fails to anticipate these elements of Claims 17 and 36.

For these reasons, *Noren* fails to anticipate the Applicants’ invention as recited in Claims 17 and 36 (and their dependent claims).

Snashall recites a method and apparatus for keying digital color TV signals. (*Abstract*). The apparatus includes a low pass filter (element 16), a demultiplexer (element 18), a switch (element 24), and a high frequency edge detector (element 26). (*Col. 2, Lines 19-35*). The high frequency edge detector causes the switch to accept the input from the demultiplexer when it detects a high frequency keying signal. (*Col. 3, Lines 17-19*).

Snashall simply recites that a high frequency edge detector can detect a high frequency keying signal. *Snashall* lacks any mention that the high frequency edge detector is capable of detecting both “at least one edge having higher frequency content ... and at least one edge having lower frequency content” as recited in Claim 39. Also, *Snashall* lacks any mention that the high frequency edge detector is capable of distinguishing “the edges having higher frequency content from

the edges having lower frequency content” as recited in Claim 39. As a result, *Snashall* fails to anticipate these elements of Claim 39.

For these reasons, *Snashall* fails to anticipate the Applicants’ invention as recited in Claim 39.

Accordingly, the Applicants respectfully request withdrawal of the § 102 rejections and full allowance of Claims 17-19 and 36-39.

IV. CONCLUSION

For the reasons given above, the Applicants respectfully request reconsideration and full allowance of all pending claims and that this application be passed to issue.

SUMMARY


If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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